MIRONOV, S.A., doktor tekhn. nauk, prof.; MALININA, L.A., kand. tekhn. nauk; LIPANOV, I.I., inzh.; MALINSKIY, Ye.N., inzh.

Dilatometric studies of structures of cement mortars subjected to various heat treatments. Trudy NIIZHB no.32:60-76 '63. (MIRA 17:1)

MIRONOV, S.A., doktor tekhn. nauk, prof.; MALININA, L.A., kand. tekhn. nauk; FEDOROV, V.A., inzh.

Physicomechanical properties of concrete with compact and porous aggregates subjected to autoclave treatment. Trudy NIIZHB no.12:88-109 '63. (MIRA 17:1)

MIRONOV, S.A., prof.

Cements for winter concreting and for heat treated reinforced concrete products. Trudy NIIZHB no.32:110-115 '63.
(MIRA 17:1)

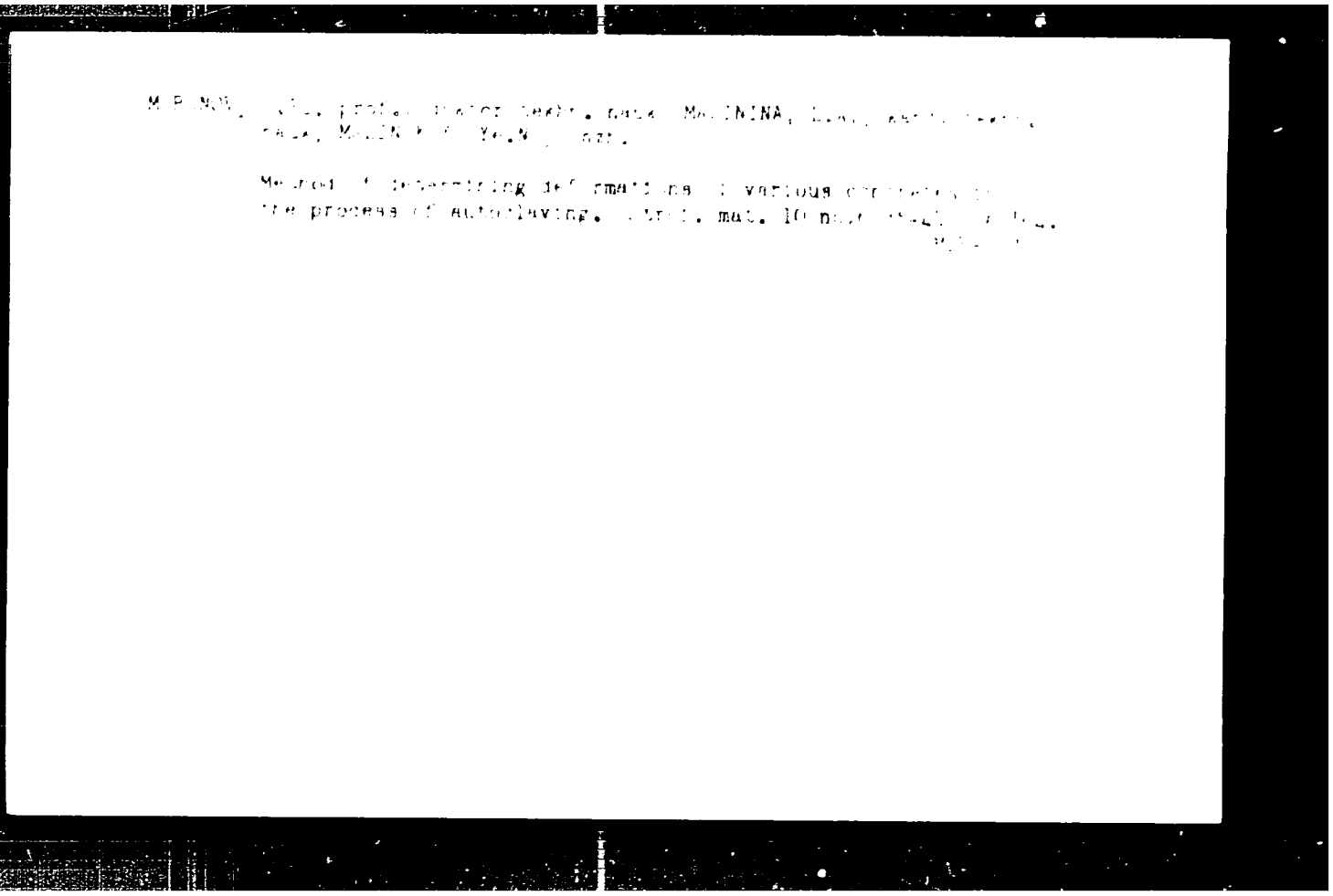
MIRONOV, S.A., prof.; BUZHEVICH, G.A., kand. tekhn. nauk

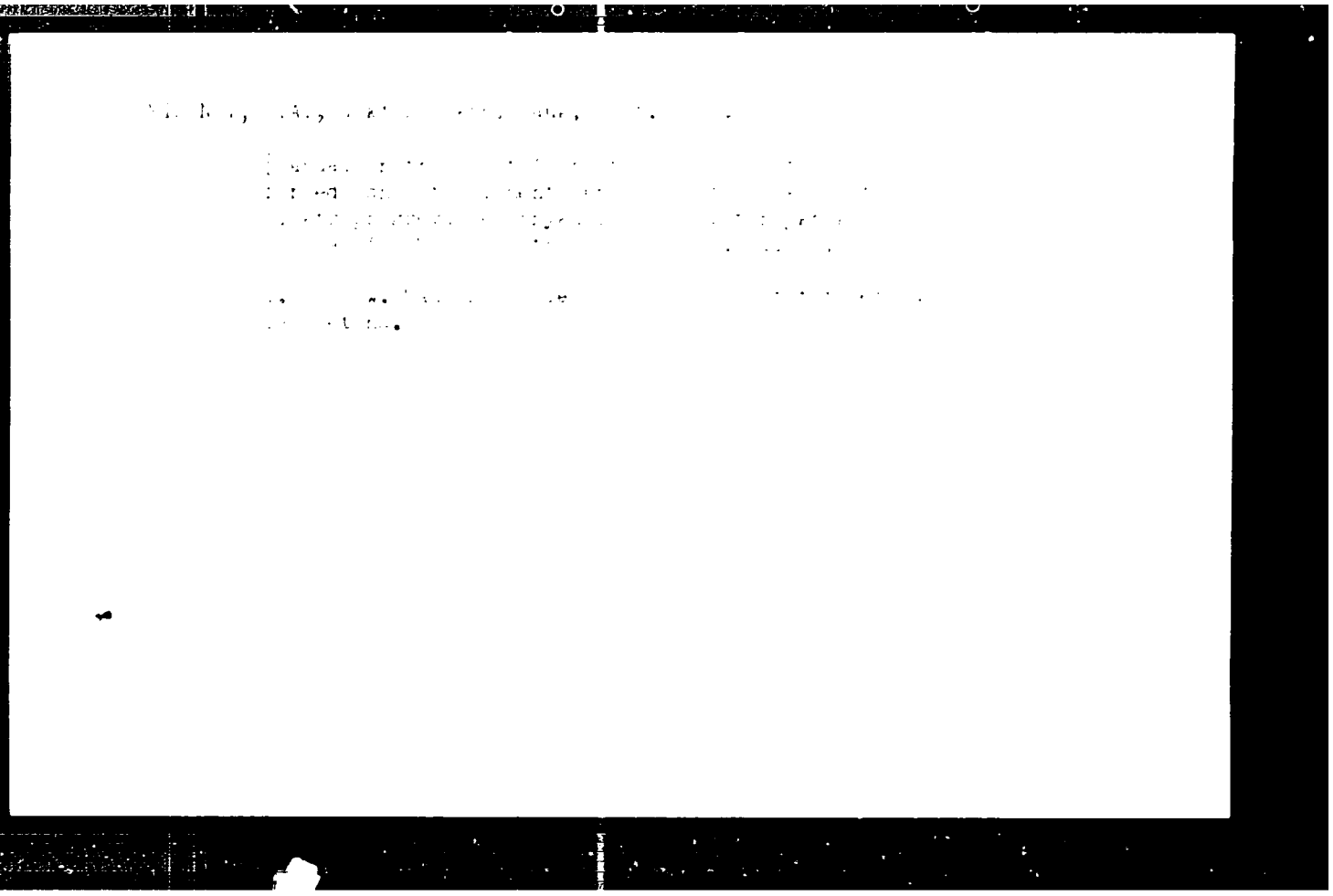
Results of concreting in regions of dry and hot climates in the U.S.S.R. Trudy NIIZHB no.32:137-152 '63.
(MIRA 17:1)

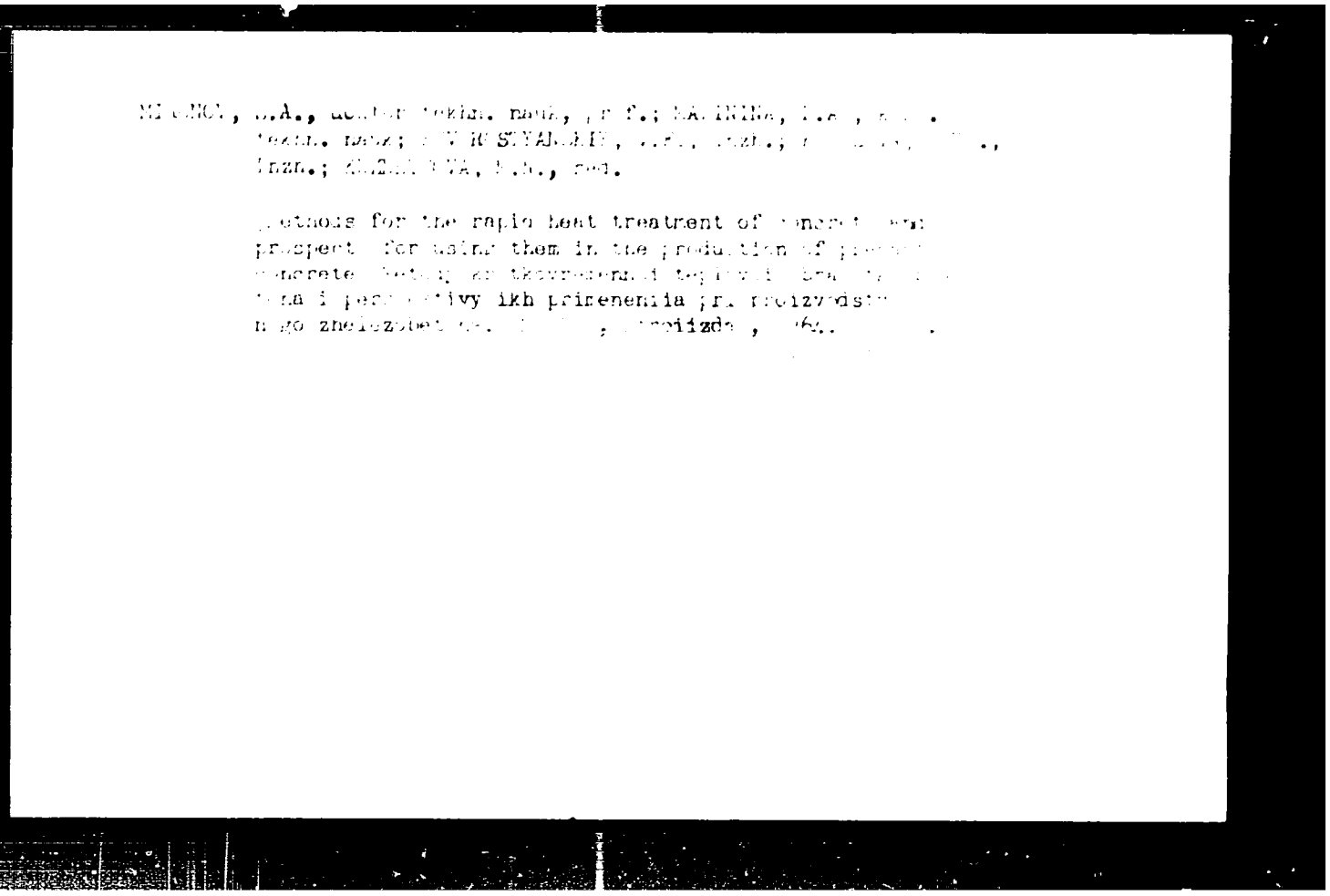
MIRONOV, S.A.; BARANOV, A.T.; BOBROV, O.D.

Theoretical requirements of the technology of production of heat-insulating gas concretes. Inzh.-fiz. zhur. 7 no.1:117-121 Ja'64.
(MIRA 17:2)

1. Institut betona i zhelezobetona, Moskva.







..., Sergey Andreyev..., doktor tekhn. nauk, prof.; MALININA, Larisa Alekse...evna, kand. tekhn. nauk

Acceleration of the hardening [illegible] tverdeniia betona. Izd.2., [illegible] Moskva, Stroyizdat, 1974. 34 p. [illegible]

L 54521-65 EWT(m)/EWG(s)-2 Pw-4

ACCESSION NR: AP5018124 UR/0097/64/000/011/0525/0528

AUTHOR: Mironov, S. A. (Professor, Doctor of technical sciences) 13 B

TITLE: Results of the RILEM International Conference on Problems of Accelerating the hardening of concrete 15

SOURCE: Beton i zhelezobeton, no. 11, 1964, 525-528

TOPIC TAGS: concrete, cement, civil engineering conference

Abstract: The Conference (6-8 July 1964, Moscow) dealt with the most pressing problems in accelerating the hardening of concrete (in connection with industrial reinforced-concrete products), summarized the existing experience in this field, and surveyed future research activities. Thirty countries were represented, 150 foreign scientists and specialists being present (total of 500 delegates); 77 reports were presented. The basic conclusions of the Conference were as follows:

1. Thermal hardening is not only the preferred technological method at the present time, but the only practical one in cold or moderate climates. To replace it would involve additional research, an improved product from the cement industry, and the use of special chemical accelerants. In addition, there is no apparent economy in the use of nonthermal methods.

Card 1/2

L 54521-65

ACCESSION NR: AP5018124

2. Research on thermal hardening is a prime necessity; substantial acceleration of the hardening process can only be achieved with a better understanding of the physico-chemical factors involved. There are serious gaps in the theoretical picture, and also numerous disagreements among specialists.

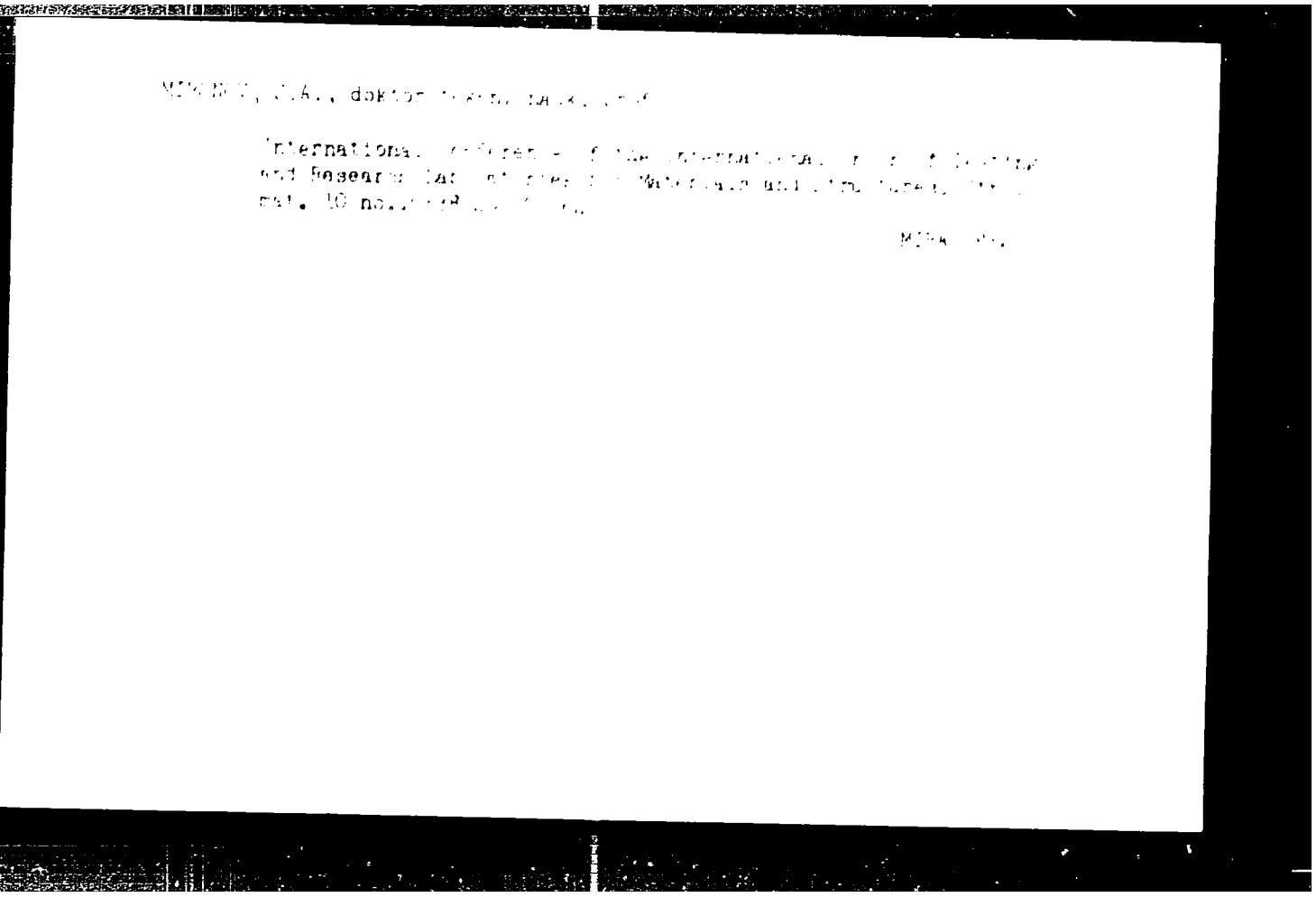
As practical means of accelerating hardening, individual reports dealt with special cements, increasing the reactive capacity of cement minerals (with respect to water), increasing the reactive surface of cement, increasing the hardening temperature, accelerating the formation of hydrates by introducing centers of crystallization, the use of chemical additives, and the use of physical methods of processing.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MT

NO REF SOV: 000 OTHER: 000 JPRS

Card 2/2



MIRONOV, S.A., prof., doktor tekhn. nauk; [illegible], L.I., inzh.

Deformations in lightweight concrete during the process of heating and thermos curing with preliminary heating of the mixture. Stroi. mat. 11 no.7:21-23 Jl '65. [illegible]

MIRONOV, S.A., doktor tekhn. nauk, MALININA, L.A., kand. tekhn. nauk;
MALINSKIY, Ye.N., inzh.

Role of the excess pressure of air-steam medium in the process of thermal treatment of building materials. Stroi. mat. 11 no. 12:8-11 D '65. (MIRA 18:12)

ACC NR: AP6033556

SOURCE CODE: UR/0181/66/008/010/2958/2964

AUTHOR: Gurevich, A. G.; Lebedʹ, B. M.; Mironov, S. A.; Starobinets, S. S.; Shevlyagin, K. V.

ORG: Institute of Semiconductors, AN SSSR, Leningrad (Institut poluprovodnikov AN SSSR)

TITLE: Influence of the distribution of the magnetic field in a sample on the excitation of magnetoelastic waves

SOURCE: Fizika tverdogo tela, v. 8, no. 10, 1966, 2958-2964

TOPIC TAGS: magnetoelastic wave, magnetic field, yttrium iron [illegible], ferrite, single

ABSTRACT: In view of the disparity between the theory of magnetoelastic wave propagation, developed by E. Schlomann and R. I. Joseph (J. Appl. Phys. v. 35, 159, 167, 2382, 1964), and numerous experimental results, including those by the authors (Izv. AN SSSR ser. fiz. v. 30, 1002, 1966), a more detailed experimental study was made of the mechanism of the magnetoelastic waves, especially at different distributions of the internal magnetic field. The excitation was with a 1500 MHz generator operating in the pulsed mode (~1 μsec pulse duration) at maximum power ~0.5 watt. Single-crystal yttrium garnet was used as the sample. The external field was homogeneous and parallel to the sample axis. The internal field was varied by attaching to the single-crystal sample additional polycrystalline yttrium-iron-garnets of different lengths. The tests consisted of measuring the delay time of the waves and the total losses of the magneto-

Card 1/2

ACC NR: AP6033556

elastic pulses. The results showed that a series of magnetoelastic pulses was excited at all values of maximum gradient of the internal field (which ranged from 2000 to 3500 Oe/cm). No waves were excited when the internal field was uniform. The plots of the losses of the delayed pulses vs. the external field exhibit maxima and decrease with increasing field gradient. The damping of the pulse sequences is small (~2 db) and is practically independent of the field gradient. The upper limit of external fields at which excitation takes place is much higher than predicted by the theory of Schlomann and Joseph, but in weak fields the theory agrees with the dependence of the delay time and of the losses on the external field. The discrepancy in the case of strong fields may be due to the action of an additional excitation mechanism, confined to the surface of the sample, which was not accounted for in the theory. The authors thank G. A. Smolenskiy for discussing the results and A. G. Titova for supplying the single crystals. Orig. art. has: 6 figures, 5 formulas, and 1 table.

SUB CODE: 20/ SUBM DATE: 01Mar66/ ORIG REF: 003/ OTH REF: 012

Card 2/2

ACC NR: AP6029119 SOURCE CODE: UR/0048/66/030/006/1002/1007

AUTHOR: Gurevich, A.G.; Lobed', B.M.; Mironov, S.A.; Starobinets, S.S.; Titova, A.G.; [illegible], A.V.

ORG: Institute of Semiconductors, Academy of Sciences of the SSSR (Institut poluprovodnikov Akademii nauk SSSR)

TITLE: Excitation of magnetoelastic waves [Report, All-Union Conference on the Physics of Ferro-and Antiferromagnetism held 2-7 July 1965 in Sverdlovsk]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 6, 1966, 1002-1007

TOPIC TAGS: yttrium compound, garnet, single crystal, spin phonon interaction, magnetoacoustic effect

ABSTRACT: The authors have investigated the excitation at frequencies from 0.2 to 3 kMc of magnetoelastic waves in three single crystal yttrium garnet specimens from 2.5 to 6.9 mm long and from 2 to 5 mm in diameter having polished ends that were parallel within 15" and perpendicular to the [111] axis within 1°. The constant external magnetic field was uniform and parallel to the axis of the specimen (the [111] axis of the crystal). The specimen was mounted between two identical cavity resonators, of which one served to produce the exciting high frequency magnetic field (which was parallel to the face of the specimen) and the other, to detect the transmitted wave. Magnetoelastic waves could be observed under optimal conditions with an

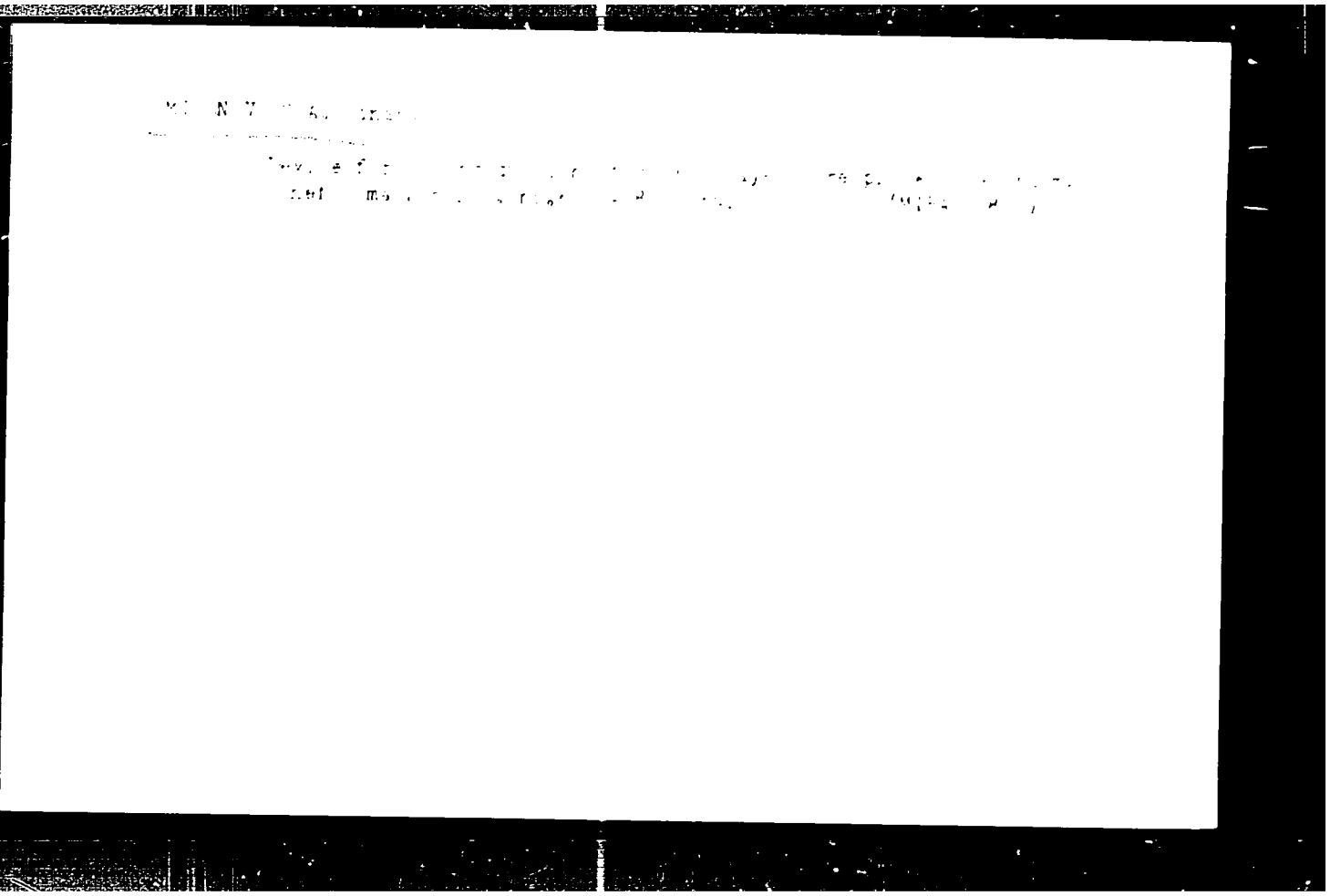
Card 1/2

L 08752-67
ACC NR: AP6029119

excitation power of the order of microwatts. The delay of the magnetoelastic wave decreased monotonically with increasing magnetic field strength in qualitative agreement with the theory of E.Schlömann and R.I.Joseph (J. Appl. Phys., 35, 159, 167, 2582 (1964)). The magnetoelastic waves were much less highly damped than is predicted by the Schlömann theory. The authors discuss possible reasons for this behavior alternative to the suggestion of W.Strauss and F.G.Eggers (Appl. Phys. Lett., 6, 18 (1965)), which they find unconvincing. Magnetoelastic waves were also observed in magnetic fields that were somewhat stronger than the maximum fields in which they should theoretically appear. It is concluded that further theoretical work is needed. The authors thank G.A.Smolenskiy for valuable discussions. Orig. art. has: 5 formulas and 5 figures.

SUB CODE: 20 SUBM DATE: 00 ORIG. REF: 002 OTH REF: 015

Card 2/2 bc



MIRONOV, S.A., doktor tekhn. nauk, prof., [illegible] kand. tekhn. nauk

Use of gas concrete in Sweden. Stroi. mat. 10 no.2 [illegible]
F '64. (MIRA [illegible])

L 7985-66 EWT(1)/EPA(s)-2/EWT(m)/EPF(c)/EPF(n)-2/T/ETC(m) WW/DJ

ACC NR: AP5026519 SOURCE CODE: UR/0286/65/000/019/0050/0050

AUTHORS: Gusev, V. I.; Mironov, S. G.; Piskalov, L. M.; Karpov, Ye. N.

ORG: none

TITLE: A device for lubricating vacuum pumps. Class 27, No. 175165 [announced by Enterprise of the State Committee for Defense Technology, SSSR (Predpriyatiye gosudarstvennogo komiteta po oboronnoy tekhnike SSSR)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 50

TOPIC TAGS: pump, vacuum pump, mechanical engineering

ABSTRACT: This Author Certificate presents a device for lubricating vacuum pumps. The device contains a cutoff valve operated by a centrifugal governor kinematically connected to the shaft of the pump (see Fig. 1). To simplify the construction, the governor is mounted on the shaft bracket, and the movable clutch of the governor is provided with a bearing which opens or closes the valve when the pump is being stopped or started.

Card 1/2 UDC: 621.521--72

L 7985-66

ACC NR: AP5026519

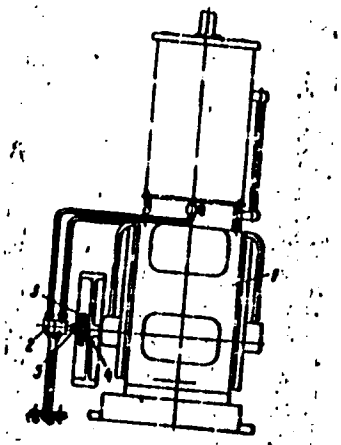


Fig. 1. 1- pump; 2- valve; 3- centrifugal governor; 4- pump shaft; 5- bearing

Orig. art. has: 1 figure.

SUB CODE: IE/ SUBM DATE: 21Jul64

Card 2/2

EWP(m)/EWT(1)/EWT(m) WW/JW/JWD/WE

ACC NR: AP6033492 SOURCE CODE: UR/0413/66/000/018/0115/0115

INVENTOR: Grishin, S. D.; Gusev, V. I.; Denisov, Yu. N.; Mironov, S. G.; Serbinov, A. I.; Troshin, Ya. K.

ORG: none

TITLE: Shock tube for determining the ignition induction period of combustible mixtures. Class 42, No. 186166

SOURCE: Izobret prom obraz tov zn, no. 18, 1966, 115

TOPIC TAGS: shock tube, fuel ignition, fuel ignition induction period, air fuel combustion

ABSTRACT: The proposed shock tube for determining the ignition induction period of combustible mixtures contains a test section and a section separated by a membrane for initiating the detonation. In order to decrease the size of the shock tube, the section for initiating the shock is made in the form of a helix (see Fig. 1). Orig. art. has: 1 figure.

[WA No. 66]

Card 1/2

UDC: 534.222.2.002.51

L 08578-67

L 08578-67
ACC NR: AP6033492

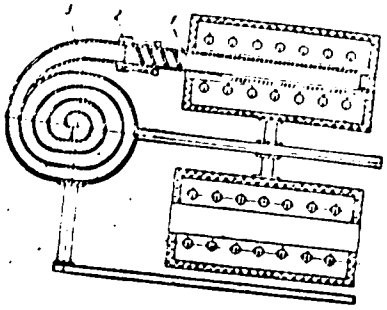


Fig. 1. Shock tube

1 - Test section; 2 - membrane; 3 - section for initiating detonation.

SUB CODE: 21/ SUBM DATE: 08Jun65

Card 2/2

MIRONOV, S.I

The formation and transformation temperature of petroleum. S. I. Mironov, G. D. Gal'pern, and Yu. A. Kolbanovskii. *Doklady Akad. Nauk S.S.S.R.* 103, 667-8 (1955).—The equil. temp. of interaction in the liquid phase of the components found in a no. of Russian and American crude oils are presented in a table. The mixts. were composed of: (1) cyclohexane and methylcyclopentane; (2) methylcyclohexane and ethylcyclopentane; (3) hexane, 2-methylpentane, 3-methylpentane, 2,2-dimethylbutane, and 2,3-dimethylbutane; (4) heptane, 2,2-dimethylbutane, 2,4-dimethylpentane, 2,3-dimethylbutane, 2-methylhexane, 3-methylhexane, 3,3-dimethylpentane, 2,2,3-trimethylpentane, and ethylpentane. The calcd. av. equil. temp. is about 170°, as obtained from 80 detns. given in the literature, and is considered representative of the order of magnitude.

W. M. Sternberg

FU

9TA

PHASE I BOOK EXPLOITATION SOV/5494

Vasil'yev, Mikhail Vasil'yevich, and Sergey Zakharovich Gushchev

Reportazh iz XXI veka; my zapisali rasskazy dvadtsati devyati sovetskikh uchenykh o nauke i tekhnike budushchego (Reports From the Twenty-First Century; Stories of Twenty-Nine Soviet Scientists on Science and Engineering of the Future) [Moscow] Izd-vo Sovetskaya Rossiya, 1958. 243 p. 50,000 copies printed.

Ed.: V. A. Golubkova; Tech. Ed.: G. I. Kleyeva.

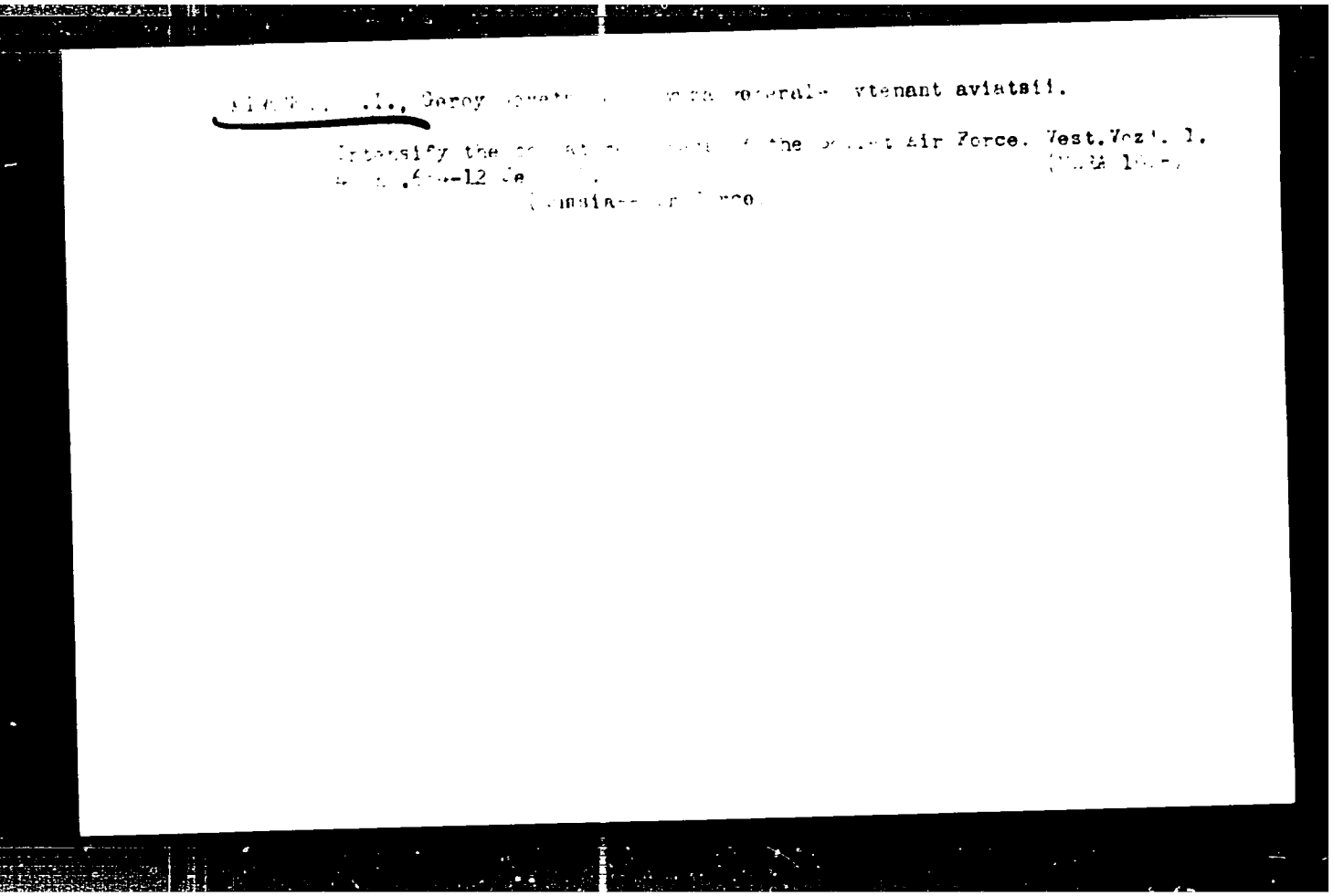
PURPOSE : This book is intended for the general reader.

COVERAGE: The book contains 27 articles (told reporters by Soviet scientists) dealing with probable future progress in physics, chemistry, electricity, metallurgy, engineering, mining, medicine, biology, agriculture, zoology, transportation, exploration of space, and photography. Attention is given to automation, automatic underground gasification of coal, use of new metals, modernization of oil fields, atomic electric stations, production of metal parts by the process of explosion, explosions

Card 1/7

in dam construction, cancer, internal longevity reserves, machine diagnoses of illnesses, surgery vs. treatment by ultrasonic vibrations, mechanical heart substitutes, human body banks, "medical engineering," enriched fodder, "superfertilizers", artificial snowfalls, agriculture vs. "mariculture", radiochemistry, power beam vs. wire, machines doing intellectual work, "HF automobiles" (with "radio motors"), "artificial sun" (electromagnetic rays focused above a city which cause heated molecules to shine), future ocean ships, "railway dreadnoughts", Moscow of the future, moving pavements, wheelless and driverless automobiles, electric cameras, the industrialization of Siberia, use of underground heat, climate control, living on the moon, antimatter, and photon jet. Names of the interviewed scientists are given. There are no references.

TABLE OF CONTENTS:



MIRONOV, S.I., general-polkovnik, Geroy Sovetskogo Soyuza

Continuous attention to the study of military history.
Vest.Vozd.Fl. no.2:12-17 F '60. (MIRA 13:7)
(Russia--Military history) (Russia--Air Force)

MIRONOV, S. T.

"Investigation of the Effect of Air Enrichment with Oxygen on the Combustion of Anthracite Culm." Cand Tech Sci, All-Union Order of the Labor Red Banner Heat Engineering Sci Res Inst imeni F. E. Dzerzhinskiy

Dissertations presented for science and engineering degrees in Moscow during 1951.

Knizhnaya letopis' No. 27, 2 July 52

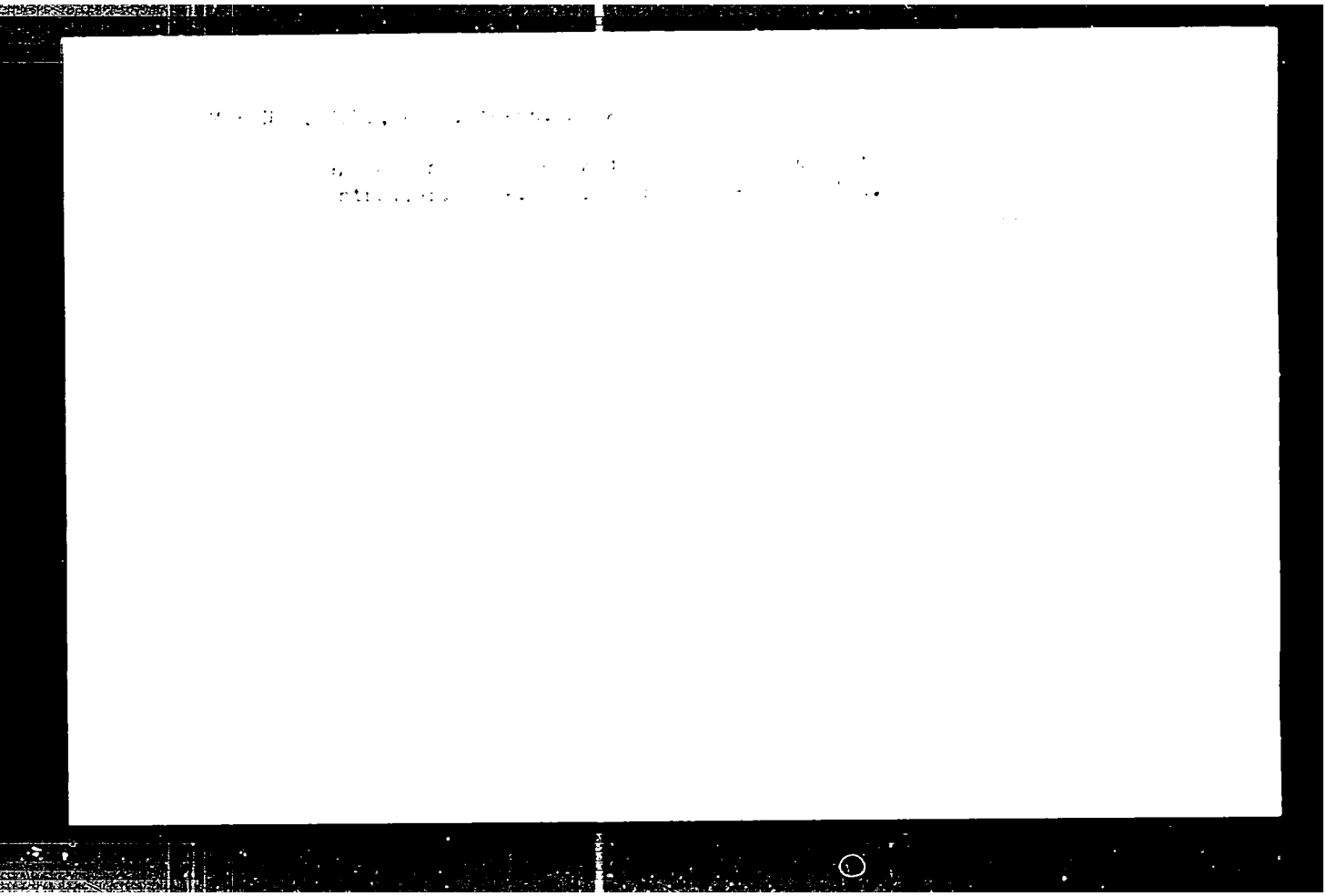
MIRONOV, S.N.

3501. IMPROVEMENT OF COMBUSTION OF ANTHRACITE DUFF. (Lebedev, A.N. and Mironov, S.N. (Elekt. Sta. (Pwr Sta., Moscow), Dec. 1956, vol. 27, 5-13). Possible modifications of the latest Soviet pulverized fuel-fired boilers to improve the steadiness and economy of combustion with this fuel are discussed. (L). Fuel 3

MIRONOV, S.N., kand. [illegible], YURAYEV, V.G., inzh.; IVANOV, A.[illegible]

Study of [illegible] of furnaces with angularly placed burners and its relationship with the combustion process [illegible] around [illegible]. Teploenergetika 11 no.4:16-20 Ap [illegible]. (MIRA [illegible])

1. [illegible] Thermal Engineering Institute.



MIRONOV, [illegible].N., [illegible]

Experimental study [illegible] 12 no.1:[illegible] [illegible] MIRA 18:4

1. Vsesoyuznyy [illegible] [illegible]cheskiy institut.

MIRONOV, S. P.

USSR/Electronics - Communications Sep/Oct 49
Pulse Systems

"Transients in Multichannel Pulse Systems With Pulse-Duration Modulation," S. P. Mironov, Engr

"Radiotekh" Vol IV, No 5, pp 52-63

Examines disturbances occurring as a result of limited channel band-width and frequency and phase distortions in the region of the modulation frequencies. Gives formulas and graphs for calcg these disturbances. Establishes tech requirements for the correction of frequency and phase characteristics. (Results confirmed by expt.) Submitted 11 Jul 49.

206T56

9.2120
9.2130
9.3275

S/106/60/000/011/003/010
A055/A033

AUTHOR: Mironov, S.P.

TITLE: Calculation of Pulse Transformers with Annular Ferrite Cores.

PERIODICAL: Elektrosvyaz', 1960, No. 11, pp. 26-33

TEXT: Pulse transformers with ferrite cores are particularly suitable for use in automatic office telephone circuits where the salient feature of the electric pulses is their rather long duration and their practically rectangular shape, as well as the low magnitude of the voltage and power involved. The low power of the transformer warrants the use of simplified calculation methods which do not take into account the losses in the cores. However, long duration pulses can be transmitted without distortion only when the inductance of the windings is sufficiently large, which implies an increase in the transformer's size and cost. The main problem in the calculation of such transformers is therefore to reduce to a reasonable minimum the consumption of expensive magnet wire by an adequate choice of the core size for given magnetic characteristics. The present article contains a so-

Card 1/3

S/106/000/011/003/010
A055/A033

Calculation of Pulse Transformers with Annular Ferrite Cores.

lution of this problem in the case of pulse transformers with ferrite cores having a rectangular cross-section, the underlying condition being an undistorted transmission of the flat part of the pulses. The author states first the well-known magnetic conditions that must be satisfied for such undistorted transmission. He obtains then a formula giving the optimum volume of the core. A comprehensive discussion proves that the volume given by this formula is indeed the volume ensuring the most economical solution from the view point of the magnet wire to be used for the transformer windings. Having found this optimum volume the author works out, by a set of equations and comprehensive reasoning, the most advantageous relationships between the various parameters of the transformer, i.e., width and height of the rectangular cross-section, the inner radius of the core and the number of turns of the windings. The obtained results are illustrated in a practical example where optimum numerical values of the width and height of the cross-section, of the inner radius of the core and of the number of turns of the primary and secondary windings are given in the case of an experimental transformer.

Card 2/3

S/106/000/01?/003/010
A055/A033

Calculation of Pulse Transformers with Annular Ferrite Cores.

There are 4 figures and 4 references: 3 Soviet and 1 non-Soviet.

SUBMITTED: April 8, 1960

/B

Card 3/3

24.2300 (1147, 1164, 1482)

34834

AUTHOR: Mironov, V. [illegible]

TITLE: Determination of the pulse parameters [illegible] rectangular hysteresis [illegible] by means of dynamic [illegible]

PERIODICAL: Elektrosvyaz', no. [illegible], 19[illegible], 23 - 27

TEXT: In this article is described a method for the determination of the reversal coefficient s_w and of the threshold field H_c of ferrite cores with a rectangular hysteresis loop by means of two or more dynamic polarity reversal loops, obtained on an electron-beam ferrometer with a sinusoidal field. The author first shows, by theoretical considerations, that this method widely used for the determination of the parameters s_w and H_0 of ferrite cores, can also be used for the determination of the other parameters of the dynamic polarity reversal loop (Fig. 2). In order to establish the relationship between the parameters of the dynamic polarity reversal loops and the pulse parameters. He examines next the dynamic (In Fig. 2, subscript "r" stands for "residual" and subscript "m" for "maximum". The area of the trapezium ABCD is approximately equal to the area of the [illegible]

Card 1/2

Determine [illegible] the pulse

Triangle ABC [illegible] to this area corresponds the energy that would be [illegible] reversal of the same flux by the rectangular field pulse with amplitude H_m equal to the dynamic coercive force. The author shows that, from each reversal curve obtained at given values of the frequency f and of H_m, it is possible to obtain one point on the graph representing $\frac{1}{\tau} = f(H)$ (plotting the time of flux reversal. In the text, where H_{cd} must be used as H. The thus plotted graph will be a very good approximation of the graph plotted for a system with polarity reversal by rectangular pulses. The time τ is determined as follows: the lines a - a and b - b permit finding the points corresponding to the moments of the reference beginning and end of the flux reversal process. It is evident that

$$\overline{AD} = H_m \sin\omega t_1' \quad \text{and} \quad \overline{BC} = H_m \sin\omega t_2'$$

Hence

$$\tau = t_2' - t_1' = \frac{1}{\omega}\left(\arcsin\frac{\overline{BC}}{\overline{H_m}} - \arcsin\frac{\overline{AD}}{H_m}\right) \approx \frac{\overline{BC} - \overline{AD}}{\omega\,\overline{H_m}}$$

The graph $\frac{1}{\tau} = f(H_{cd})$ being plotted, the parameters S_w and H_c can be determined in the usual way with the aid of this graph. Some practical graphs are reproduced at the end of the article. The author expresses his thanks to N. P. [illegible] and others. The Soviet personalities mentioned in the article are [illegible].

Card 2/2

MIRONOV, S.P.

Evaluation of the parametric potentials of a diodeless shift register using two-opening transfluxers. Elektrosviaz' 16 no.10:38-44 O '62. (MIRA 15:9)
(Electric networks) (Pulse circuits)
(Ferrites)

L 01789-66

ACCESSION NR: AP5020888 UR/0106/65/000/008/0069/0076
621.374.328

AUTHOR: Mironov, S. P.

TITLE: Transfluxor logical circuit [Based on the report at the 20th All-Union Scientific Conference, May 9, 1964]

SOURCE: Elektrosvyaz', no. 8, 1965, 69-76

TOPIC TAGS: logic circuit, transfluxor, computer device, magnetic core

ABSTRACT: A brief analysis of transfluxor logic is presented with a view toward evaluating transfluxors for industrial applications where high-speed logic is not demanded. The basic logical unit described is a double inverter stage, shown with associated drive currents. This circuit was fully discussed in the Bell System Technical Journal, no. 2, 1960. It has a two-turn output winding capable of driving two successive stages. With the basic unit, it is possible to build logical OR gates, but their fan-in is limited to only 5 or 6, even when noise compensation techniques are applied. Other logic blocks can be formed with the addition of a "ones generator" circuit. Thus,

Card 1/2

L 01789-66

ACCESSION NR: AP5020888

NOT, AND, NOR, NAND, and other logic circuits can be constructed with fan-out capabilities of 6. An eight-stage binary counter with exclusive OR gates and a ten-stage shift register based on transfluxors were built and tested. Transfluxors with the following characteristics were used: mean magnetic path of the large aperture, 1.3 cm; mean path of the small aperture, 0.5 cm; switching flux, 0.24 x 10^{-6} v-sec; static coercive force, 0.5 oe; switching factor 0.35—0.4 oe-μsec. The counter and the shift register performed satisfactorily at a 5-kc clock frequency in an ambient temperature range of 0—60C, with driving pulses with a height of 5—6 amp, duration of 8—10 μsec, and rise time at 3—4 μsec. Orig. art. has: 8 figures. [BD]

ASSOCIATION: none

SUBMITTED: 15Sep64 ENCL: 00 SUB CODE: DP, EC

NO REF SOV: 003 OTHER: 007 ATD PRESS: 4086

Card 1/2

MIRONOV, Sergey Semenovich. State Sci. Res.

Planning Ind. for Processing Non-Ferrous Metals, -194 -

Dir., an inst.,

"Development of Nonferrous Metal Factories Production for the Period 1917-1947," Tsvet. Met., No. 5, 1947. Stalin 3rd Prize, 1949 & 1950, pure metal.

AUTHORS: Mironov, S.S and Fendrik, A I

TITLE: Our Friendship with the Chinese Peoples Republic

PERIODICAL: Tsvetnyye metally, 1957, Nr 9, pp 4-10 (USSR)

ABSTRACT: There has been close cooperation between "Giprotsvetmetobrabotka" and Peking Institute of Non-Ferrous Metallurgy of the Chinese Peoples Republic Equipment for rolling and tube pressing of aluminium was made in the Soviet Union for use in China An air-circulating electric furnace (Fig 1) was used for homogenization of D1 and D16 ingots Each furnace will take four ingots, 200 x 1400 x 6010 mm and is 720 kw Its accuracy is ± 5°C For hot rolling aluminium strip a reversing hot mill "2000" (Fig 2) was constructed with the help of the Novo-Kramatorsky Machine-Construction Works. For cold rolling a 4-high mill from Uralmashzavod was used (Fig 3) It has a maximum rate of 5 to 6 m/second A high rate production line for continuous finishing of strip was worked out with Giprotsvetmetobrabotka and prepared at the Staro-Kramatorsky Machine-Construction Works. It was used with great success by the Chinese (Fig 4 and 5) The equipment for the two main mills -

Card 1/2

Our Friendship with the Chinese Peoples Republic

rolling and tube pressing - was ready within one year. 50,000 m3 of concrete was used as a base and 30 Soviet specialists were involved in setting up the mills and starting production. New systems of homogenizing duralumin ingots were worked out which gave optimum plasticity. This enabled Wei Pen-sheng and Lin Ming-kuang under the leadership of A.I.Kolpashnikov, to increase strip production of D1 and D16 by 7 to 8%. There are 6 figures.

ASSOCIATION:Giprotsvetmetobrabotka

Card 2/2

MIRONOV, S.S., agronom po zashchite rasteniy (Chistopol'skiy rayon, Tatarskaya ASSR)

Using all possibilities for effective protection of crops. Zashch. rast.ot vred.i bol. 7 no.6:1-2 Je '62. (MIRA 15:12)
(Chistopol' District--Plants, Protection of)

MIRONOV, S.S.

[illegible] Mashinostr. [illegible]

1. Nachal'nik [illegible] rayona, [illegible] ASSR.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00113[illegible]

ACC NR: AP6030608 (A, N) SOURCE CODE: UR/0413/66/000/016/0095/0095

INVENTOR: Bobylev, A. V.; Mironov, S. S.; Nikolayev, A. K.; Strakhov, G. N.; Shabashov, Ya. F.; Sergeyev, L. N.; Goryunov, I. I.

ORG: none

TITLE: Copper-base alloy. Class 40, No. 185068 [announced by the State Scientific-Research and Design Institute for Alloys and Processing of Nonferrous Metals (Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut splavov i obrabotki tsvetnykh metallov)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 95

TOPIC TAGS: copper chromium alloy, zirconium containing alloy, vanadium containing alloy, CHROMIUM CONTAINING ALLOY, COPPER BASE ALLOY, ALLOY COMPOSITION

ABSTRACT: This Author Certificate introduces a copper-base alloy containing chromium and zirconium. To improve the alloy physical and mechanical properties, its chemical composition is set as follows: 0.2—1% chromium, 0.1—0.8% zirconium, and 0.01—1.0% vanadium. [ND]

SUB CODE: 11/ SUBM DATE: 10Feb65/ ATD PRES: 5076

Card 1/1

UDC: 669.35'26' '292'296

MIRONOV, T.M.

Primula contact dermatitis. Vest. derm. i ven. 34 no.7:53-55 '60.
(MIRA 13:12)

(SKIN--DISEASES) (PRIMROSE)

MIRONOV, T.P.

Determining the mean values of the basic parameters of oil reservoirs with a given degree of accuracy based on a study of the Tuymazy oil field. Neftepром. delo no.2:9-12 '65.
(MIRA 18:5)

1. TSentral'nyy nauchno-issledovatel'skiy institut tekhniko-ekonomicheskikh issledovaniy po neftyanoy, neftekhimicheskoy i gazovoy promyshlennosti.

MIRONOV, T.V.(Moskva)

Readers opinions about "Meditsinskaia sestra." Med. sestra no.11: 28-30 N '55. (MLRA 9:3)

(NURSES AND NURSING--PERIODICALS)

MIRONOV, T.V.(Moskva)

The work of "Meditsinskaia sestra" in 1955. Med. sestra no.1:3-6 Ja. '56 (MLRA 9:3)

(NURSES AND NURSING--PERIODICALS)

MIRONOV, T.V.

Work of "Meditsinskaia Sestra" in 1958. Med.sestra 18 no.1: 24-30 Ja '59. (MIRA 12:10)
(NURSES AND NURSING--PERIODICALS)

NEKLYUDOV, Aleksandr Kuz'mich, brigadir; MIRONOV, T.V., red.; MATVEYEV, A.P., tekhn. red.

[In our mixed brigade] V nashei kompleksnoi brigade. Moskva, Izd-vo "Sovetskaia Rossiia," 1961. 15 p. (MIRA 14:12)

1. Kompleksnaya brigada kolkhoza "Druzhba" Kiyasovskogo rayona Udmurtskoy ASSR (for Neklyudov).
(Kiysovo District—Collective farms)

MIRONOV, T.V

Work of the periodical. Med. sestra 20 no.4:3-8 Ap '61.
(MIRA 14:5)

1. Otvetstvennyy sekretar' zhurnala "Meditsinskaya sestra".
(NURSES AND NURSING—PERIODICALS)

MIRONOV, T.V.

Our journal in the year 1961. Med. sestra 21 no.4:3-7 Ap '62.
(MIRA 15:4)

1. Otvetstvennyy sekretar' zhurnala "Meditsinskaya sestra".
(NURSES AND NURSING—PERIODICALS)

KHUBLAROV, Vitaliy Ashotovich; SHCHERBAKOV, Anatoliy Ivanovich; MIRONOV, T.V., red.; DZYUBA, G.N., tekhn. red.

[The workers' thoughts flashed] I zasverkala rabochaia mysl'. Moskva, Sovetskaia Rossiia, 1963. 55 p.
(MIRA 17:3)

MIRONOV, T.V.

Work of the periodical "Meditsinskaia sestra" in 1962. Med. sestra 22 no.4:42-47 Ap '63. (MIRA 16:7)

1. Sekretar' zhurnala "Meditsinskaya sestra".
(NURSES AND NURSING—PERIODICALS)

MIRONOV, V.

Winter buoy. Rech. transp. 24 no.11:48 '65.

(MIRA 19:1)

1. Nachal'nik sluzhby puti Dneprovskogo basseynovogo upravleniya puti.

M[illegible]RONOV, V., [illegible] tekhn.nauk; [illegible]N, A., kand.tekhn.nauk

Improving the system of operative [illegible]

Rech. transp. [illegible] no.4:8-9 '65. [illegible]

MIRONOV, V., kand.tekhn.nauk; LIPICHEV, N., laureat Gosudarstvennoy premii

Flexible containers for the transportation of petroleum products.
Mech. transp. 22 no.7:11-12 Jl '63. (MIRA 16:9)
(Petroleum—Transportation)
(Towing)

SEMENOV, B.F.; KARASEVA, P.S.; PARIZH, B.M.; MIRONOV, V.A.

Dry tissue vaccine for preventing tick-borne encephalitis. Vop. virus.7 no.5:613-614 S-O '62. (MIRA 15:11)

1. Moskovskiy nauchno-issledovatel'skiy institut virusnykh preparatov.

(VACCINES) (ENCEPHALITIS)

FREMEL', V.B.; VASIL'YEV, G.M.; MAKUKHINA, A.M.; MIRONOV, V.A.

Production of feed biomycin and vitamin B_{12} in alcohol plants. Spirt.prom. 26 no.4:8-10 '60. (MIRA 13:8)

(Biomycin) (Cyanocobalamin)

FREMEL', V.B.; VASIL'YEV, G.M.; MAKUKHINA, A.M.; MIRONOV, V.A.; SHISHKOVA, E.A.

Utilization of distilling washes from alcohol and acetone-butyl alcohol plants in the production of feed antibiotics. Spirt.-prom. 28 no.2:26-27 '62. (MIRA 15:5)

1. TSentral'nyy nauchno-issledovatel'skiy institut spirtovoy promyshlennosti.
(Distilling industries--By-products) (Antibiotics)

12(7)

AUTHORS: Mironov, V.A., Koryagova, A.I.

TITLE: The Tests of the Clutches of the YaAZ Automobiles (Ispytaniya stsepleniy avtomobiley YaAZ)

PERIODICAL: Avtomobil'naya promyshlennost', 1959, Nr 1, pp. 19, (USSR)

ABSTRACT: At the Yaroslavskiy motornyy zavod (Yaroslavl' Engine Plant) series and experimental clutches of automobiles YaAZ-200/205 and YaAZ-210 were tested. Further, the disk experimental clutches for vehicles with [illegible] 240 HP, having a torque of [illegible] were tested. The pressure disk and the flywheel were made of alloyed cast iron with the following chemical composition: 2.3 - 2.5% Si; 0.12% S (maximum); [illegible] 0.4% Cu; 0.2% P (maximum); 0.[illegible] - 0.8% Mn; [illegible] 0.45% Cr; 0.12% Ni (minimum); 0.[illegible] Si. The friction lining consisted of the asbestos [illegible] 7KF-31. The clutches were tested on an inertia [illegible] stand used also for brake testing, Figure 1, which is

Card 1/3

The Tests of the Clutches of the YaAZ Automobiles

inertia moment of the rotating masses of [illegible] corresponding to the inertia moment of [illegible] moving mass of an automobile under consideration of the influence of the rotating masses of the driving wheels. The author presents in Table 1 a comparison of the friction factor reduction of the clutches for the MAZ-200 and the YaAZ-[illegible] after having performed a certain length of service and after a certain number of operations on the test stand. The author concludes that a considerable reduction of the clutch moment is characteristic for the clutches of the YaAZ automobiles (depending upon the length of service up to 50%), whereby the magnitude M_c (clutch moment) cannot be restored by adjustments. For reducing the factor of clutch reserve, a lining with a constant friction factor is recommended. The clutch moment changes probably in dependence on the initial [illegible] whereby its maximum value is observed at 1500-1600 rpm; the clutch moment is reduced with a further

Card 2/3

The Tests of the Clutches of the YaAZ Automobiles

rpm increase. The clutch factor increases with [illegible] temperatures of the clutch linings between [illegible] and 140°. Beginning at 140° it decreases. Finally, it was established that the friction coefficient of the clutch facing on the YaAZ automobile increases from 0.3 to 0.34 when increasing the specific pressure from 1.5 to 3 kg/cm² at a temperature of [illegible]. It increases from 0.29 to 0.4[illegible] at a temperature of 150°. There are 1 figure, [illegible] and [illegible].

ASSOCIATION: Yaroslavskiy motornyy zavod (Yaroslavl' Engine Plant)

Card 3/3

MIRONOV, V.A.; LISITSYN, V.S.

New pneumatic power steering mechanism. Avt.prom. no.6:22-23 Je '60. (MIRA 13:8)

1. Yaroslavskiy motornyy zavod.
(Automobiles--Steering gear)

ALEKSEYEV, A.S., kand. fiz.-matem. nauk; MIRONOV, V.A., inzh.; [illegible], A.S., inzh.

System of automatic addressing and counting on a suspended [illegible]-type conveyer. Mekh. i avtom. proizv. 15 no.12:47-52 D '61. (MIRA 14:12)

([illegible] machinery) (Electric instruments)

ZAMAKHAYEV, Mitrofan Semenovich; MIRONOV, Viktor Aleksandrovich; IVEVLEVA, T.A., red.; GALAKTIONOVA, Ye.N., tekhn.red.

[Road foreman's manual] Posobie desiatniku dorozhniku. Izd.3., perer. i dop. Moskva, Nauchno-tekhn.izd-vo M-va avtomobil'nogo transp. i shosseinykh dorog RSFSR, 1958. 287 p. (MIRA 12:12)
(Road construction)

MIRONOV, V.A.

Biosynthesis of vitamin B_{12} in the Actinomyces aureofaciens culture with vinasse containing media. Trudy TSNIISP no.12:64-66 '[illegible].
(MIRA 17:3)

MIRONOV, V. A.

AUTHORS: Flid, R. M., Mironov, V. A.

TITLE: The Kinetics of Liquid Phase Hydrobrominati n of Acetylene in the Presence of Mercury Salts (Kinetika zhidkofazno gidrobromirovaniya atsetilena v prisutstvii soley rtuti

PERIODICAL: Doklady Akademii Nauk SSSR, 195?, Vol. 114, N: , pp.3[illegible] (USSR)

ABSTRACT: There exist relatively few scientific papers on the catalytic interaction in the liquid phase of acetylene with hydrohalides in presence of mercury salts. Acetylene hydrobromination has been investigated only in the gaseous phase. According to the data available, there are formed, in addition to bromovinyl, also different isomers of dibromethane or their mixtures. From reactions of hydrochlorination and hydrobromination only asymmetrical adducts were identified among the dihalide derivatives. Because production of both isomers of dibromethane appeared to be possible, the authors of the paper under review carried out the investigation outlined in the title of the present paper. A . The influence of the relation between

Card 1/5

The Kinetics of Liquid Phase Hydrobromination of Acetylene in the Presence of Mercury Salts

reagents upon the degree of conversion of acetylene. It was determined that the total degree of acetylene conversion as well the yield of vinylbromide and ethylidendibromide do not depend on the relation between the reagents, this relation varying within the limits $HBr : C_2H_2 = 0,5 : 4$. The dependence obtained made it possible, completely obviously, to determine the zero-kinetic order of the reaction with respect to hydrobromine. B. The influence of the contact duration upon the speed of the acetylene hydrobrominati on. The kinetic measurements showed, (1), that the formation of 1,1-dibromethane is the result of a simultaneous attachment of two molecules of HBr and C_2H_2, without vinylbromide participating as intermediate product; thus the reactions of formation of vinylbromide and of ethylidendibromide are two independent parallel reactions; and (2), that both parallel reactions are of first order with respect to acetylene with a hampering by the two reaction products. C. The influence of the concentration of mercury bromide in the contact solution upon the speed of the acetylene hydrobromination. As can be seen from Chart Nr 2 of the present paper, α_0 increases monotonously when the concentration of $HgBr_2$ is increased. α_1 goes through a maxi-

mum, and K_2 increases rather sharply. This fact can be connected with the increase in the probability of the formation between the acetylene molecule and two molecules of the catalyzer when the concentration of $HgBr_2$ is increased. There exists reason to assume that the reaction is catalyzed by the ion $HgBr_3^-$ because $HgBr_4^{--}$, being saturated with respect to the coordination, can hardly participate in the activation of acetylene. On basis of kinetic equations, speed constants of the reactions were computed for all four concentrations of the catalyzer; the values of these constants increase as the concentration is increased. The authors of the paper under review maintain that the activation of acetylene is based on a withdrawal of the doublets of π electrons. If the limiting stage of acetylene hydrobromination is supposed to be its activation, a "sympatny" must exist between the potential of oxidation, as measure of its acceptor ability and its catalytic activity. Reproduction of [illegible] the present paper shows that the linear dependence between K_2 &

Card 3/5

The Kinetics of Liquid Phase Hydrobromination of Acetylene in the Presence of Mercury Salts

constant of the speed of the reaction with the reactions of hydrobromination, and the total content of acetylene is preserved. In this context the basic cause for the increase in speed of the reaction is the decrease in activation energy as the value of K increases. The linear form of the function lg K makes it possible to state that the acetylene activation is the limiting stage of the processes of hydrobromination. There are 3 figures, 2 tables, and 4 references, 1 of which is Soviet.

ASSOCIATION: Moscow Institute for Fine Chemical Technology imeni M. V. Lomonosov
(Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova)

PRESENTED: December 14, 1956, by I. N. Nazarov, Member of the Academy

SUBMITTED: December 7, 1956

Card 4/5

20-2-31/

The Kinetics of Liquid Phase Hydrobromination of Acetylene in the Presence of Mercury Salts

AVAILABLE: Library of Congress

Card 5/5

AUTHORS: Nazarov, I. N.(Deceased), Makin, S. M., SOV/79-29-1-95/71
Kruptsov, B. K., Mironov, V. A.

TITLE: Synthesis of Acetals and Ketals by Means of Tetraalkoxy-Silanes (Sintez atsetaley i ketaley s pomoshch'yu tetraalkoksi-silanov)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 1, pp 108-111 (USSR)

ABSTRACT: It is known that the most suitable acetylating agents are the esters of the ortho-formic acid. Owing to their high costs they can however not be used as initial substance for the synthesis of acetals. As a substitute for the above esters the authors chose the easily available esters of the ortho-silicic acid (tetraalkoxy-silanes). Helferich and Hansen (Ref 1) found that the tetraalkoxy-silanes are able to acetylate aldehydes and ketones in alcoholic medium in the presence of hydrogen chloride. The authors met however with many difficulties at the attempt to obtain some acetals and ketals according to this method and the yields were also small. For this reason, they investigated thoroughly the reaction of the tetraalkoxy-silanes with aldehydes and ketones under different conditions. On the reaction of acetone with

Card 1/3

tetraalkoxy-silane they used HCl, concentrated H_2SO_4, p-toluenesulfonic acid, phosphoric acid, etc. as catalysts for the acetylation. Phosphoric acid proved to be the most suitable catalyst. In contrast with the general opinion, tetraalkoxy--silanes react well with aldehydes and ketones in the presence of some alcohol. Thus the diethyl ketal of acetone with tetraethoxy-silane was obtained in 93 % yield, on addition of 0.5 % alcohol only. Many other acetals of various aldehydes, ketones, etc. were synthesized also with good yields and very limited use of alcohol. The small alcohol quantity is important in the synthesis of low-boiling acetals and ketals: It is thus possible to obtain in the distillation the acetal and ketal with minute alcohol quantities which can easily be removed by water, which is rather difficult at higher quantities of alcohol. In the synthesis of high-boiling acetals the amount of the easily separable alcohol is of no importance. In the acetylation of the croton aldehyde the alcohol quantity is of particular importance: At 0.1-0.2 mol alcohol with 1 mol aldehyde dimethyl and diethyl acetal were resulting in a yield

up to 90 %. On addition of more than 1 mol alcohol 1,1,3-trialkoxy-butanes are formed as main products (Ref 2). Without any alcohol the reaction yields 17 % only. For the removal of the acetals and ketals two methods were applied according to whether they are lower or higher boiling than the tetraalkoxy-silanes used in the reaction (see experimental part). The diethyl acetals of the croton aldehyde and methyl heptenone were obtained in good yield by the esters of ortho-formic acid as well. Both tables present all acetals and ketals synthesized. There are 2 tables and 7 references, 1 of which is Soviet

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii (Moscow Institute of Fine Chemical Technology)

SUBMITTED: July 19, 1957

Card 3/3

AUTHORS: Nesmeyanov, A. N.(Deceased), SOV/79-9-1-2[illegible]/74
Makin, S. M., Kruglova, E. K., Mironov, V. A.

TITLE: Synthesis of Vinyl and Diene Ethers (Sintez prostykh vinilovykh i divinilovykh efirov)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 1, pp 111-117 (USSR)

ABSTRACT: In the presence of the vapors of dimethyl and diethyl acetals of the acetone of acetic acid, propione, butyric acid, isobutyric acid, as well as of the dimethyl and diethyl acetals of acetone and cyclohexanone over NaH_2PO_4 and $MgHPO_4$ (as catalysts) at 300-375° the authors obtained the substituted vinyl ethers listed in table 1. The simple diene ethers are considerably interesting in organic chemistry since they possess two conjugated double bonds and a reactive alkoxy group. Furthermore, methoxy and ethoxy isoprenes were synthesized and the methoxy and ethoxy butadienes previously described (Refs 7,8,9) were investigated. The alkoxy dienes specified were obtained by catalytic cleavage of the acetals of croton and β-methyl-croton aldehyde, as well as of the 1,1,3-trialkoxy-butanes and 1,1,3-trialkoxy-3-methyl butanes. The dimethyl and diethyl

Card 1/3

Synthesis of Vinyl and Diene Ethers SOV/79-29-1-6/74

acetals of β methyl croton aldehyde were synthesized according to scheme 1 in the presence of small quantity of $BF_3O(C_2H_5)_2$, the butenes mentioned according to reference 7 and scheme 2 (Refs 11,14,15,16). The catalytic cleavage of the acetals of croton and β-methyl-croton aldehyde, as well as of the trialkoxy-butenes in o the simple diene ethers was thus carried out on the catalysts NaH_2PO_4 and $MgHPO_4$. Active charcoal, silicon gel, and glass were used as carriers. The process proceeded in vacuum 10-20 mm in the nitrogen current (Scheme 3). The maximum yield of ethoxy-isoprene was attained on the catalysts $MgHPO_4$ on active charcoal and $MgHPO_4$ $NaSiO_2$ (Table 2). As to durability, $MgHPO_4$ on charcoal proved to be the best catalyst. The activity of the catalyst prepared from NaH_2PO_4 decreases more rapidly. On the catalytic cleavage of the 3-methyl-1,1-dimethoxy-1-ethoxy-butene a mixture from methoxy- and ethoxy—isoprene resulted in about the same quantity. There are 2 tables and 16 references, 8 of which are Soviet.

Card 2/3

Synthesis of Vinyl and Di-ne Ethers SOV/79-29-1-

AS.OCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii (Moscow Institute of Fine Chemical Technology)

SUBMITTED: September 10, 1957

Card 3/3

5(4) SOV/76-[illegible]

AUTHORS: Flid, R. M., Mironov, V. A., Ostrovskaya, V. M., Aronova, T. I.

TITLE: The Kinetics and Mechanism of the Catalytic Conversion of Acetylene (Kinetika i mekhanizm kataliticheskikh prevrashcheniy atsetilena). III. The Kinetics of the Hydrohalogenation of Acetylene in Liquid Phase in the Presence of Mercury Salts (III. Kinetika zhidkofaznogo gidrogalogenirovaniya atsetilena v prisutstvii soley rtuti)

PERIODICAL: Zhurnal fizicheskoy khimii, 19[illegible], Vol [illegible], Nr [illegible], pp 119 - 128 (USSR)

ABSTRACT: The catalytic addition of hydrogen halide to acetylene in the presence of mercury salts had already been carried out for several times but the data obtained were incomplete and contradictory. In the case under review tests were conducted with HCl, HBr, and HJ. The testing method and the testing apparatus were already described (Ref 1). The following products were obtained: On hydrochlorination vinyl chloride only; on hydrobromination vinyl bromide and 1,1-dibromoethane, and on hydroiodination only 1,1-di[illegible]

Card 1/3

The Kinetics and Mechanism of the Catalytic Conversion [illegible] of Acetylene. III. The Kinetics of the Hydrohalogenation of Acetylene in Liquid Phase in the Presence of Mercury Salts

ethane. The influence of the contact time τ on the conversion degree of acetylene and the yield of reaction products at various temperatures and varying ratios of the reaction were investigated (Table 2). The reaction velocity is shown by a kinetic equation of the first order (with respect to acetylene). It is impeded by the reaction products formed. The temperature influence was determined (Table 3), the activation energies were calculated and an unusual change of the temperature coefficient of the hydrochlorination reaction was observed. In all cases, a linear dependence between the logarithm of the velocity constant and the values of the oxidation potential of the cort ct solution, with various HgX_2-concentrations, was observed.

It is assumed that acetylene is activated by taking out a doublet of π-electrons by the catalyzer whereby the acetylene molecule is deformed. There are 2 figures, 4 tables and 5 Soviet reference cas.

Card 2/3

The Kinetics and Mechanism of the Catalytic Conversion [illegible] 15
of Acetylene. III. The Kinetics of the Hydrohalogenation of Acetylene in
Liquid Phase in the Presence of Mercury Salts

ASSOCIATION: Institut tonkoy khimicheskoy tekhnologii im. Lomonosova
(Institute of Fine Chemical Technology imeni Lomonosov)

SUBMITTED: June [illegible], 1957

Card 3/3

MIRONOV, V.A.; SOBOLEV, Ye.V.; YELIZAROVA, A.N.

Some features of equilibrium transformations of substituted cyclopentadienes. Izv. AN SSSR. Otd.khim.nauk no.11:2077-2078 N '62. (MIRA 15:12)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR i Komissiya po spektroskopii AN SSSR.
(Cyclopentadiene) (Deutrium)

MIRONOV, V.A.; MAVROV, M.V.; YELIZAROVA, A.N.

Substituted cyclopentadienes and related compounds. Part 1: 1,3-Dimethylcyclopentadiene. Zhur.ob.khim. 32 no.8:2723-2731 Ag '62. (MIRA 15:9)

1. Institut organicheskoy khimii AN SSSR imeni N.D. Zelinskogo.
(Cyclopentadiene)

MIRONOV, V.A.; YELIZAROVA, A.N.

Substituted cyclopentadienes and related compounds. Part 2: 1,3-Dimethylcyclopentadiene. Zhur.ob.khim. 32 no.8:2731-2738 Ag '62. (MIRA 15:9)

1. Institut organicheskoy khimii AN SSSR imeni N.D. Zelinskogo.
(Cyclopentadiene)

MIRONOV, V.A.; MAVROV, M.V.; YELIZAROVA, A.N.

Substituted cyclopentadienes and related compounds. Part 3: 3,5- and 2,4-Dimethylcyclopentenes. Zhur.ob.khim. 32 no.8:2739-2742 Ag '62. (MIRA 15:9)

1. Institut organicheskoy khimii AN SSSR imeni N.D. Zelinskogo.
(Cyclopentene)

MIRONOV, V.A.; SOBOLEV, Ye.V.; YELIZAROVA, A.N.

Moncdeuteroc,clopentadiene. Dokl. AN SSSR 143 no.5:1112-1115 Ap '62. (MIRA 15:4)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR i Komissiya po spektroskopii AN SSSR. Predstavleno akademikom A.A.Balandinym.

(Cyclopentadiene) (Deuterium compounds)

MIRONOV, V.A.; SOBOLEV, Ye.V.; YELIZAROVA, A.N.

Methylcyclopentadiene as an equilibrium mixture of isomers.
Dokl. AN SSSR 146 no.5:1098-1101 O '62. (MIRA 15:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR i Komissiya po spektroskopii AN SSSR. Predstavleno akademikom B.A.Kazanskim.

(Cyclopentadiene)

S/079/63/033/001/006/023
D204/D307

AUTHORS: Mironov, V. A., Fadeyeva, T. M., Sobolev, Ye. V. and Yelizarova, A. N.

TITLE: Substituted cyclopentadienes and related compounds. VI. Tetramethylcyclopentadiene as an equilibrium mixture of isomers

PERIODICAL: Zhurnal obshchey khimii, v. 33, no. 1, 1963, 84-91

TEXT: A continuation of previous work (DAN SSSR, 143, 1112 (1962)). The present study was aimed at an investigation of the isomerization of tetramethylcyclopentadiene (A) by analogy with the isomerism of dimethylcyclopentadienes studied in an earlier work. The isomeric mixture A was prepared from MeMgI/Et_2O and 2,3,4-trimethyl-Δ^2-cyclopentenone (obtained by the method of Nazarov et al (Izv. AN SSSR, OKhN, 1946, 529), decomposing the reaction mixture with (a) diluted HCl at ~30°C, and (b) crushed ice at 0°C. The yields of A were respectively 66 and 72%. 70% of the mixture was found to be

Card 1/2

the isomer 1,2,3,4-tetramethylcyclopentadiene (I); the 1,2,4,5,-form (III) and probably the 1,2,3,5-form (II) were also present. Almost pure III was obtained by slow rectification of A on a high-efficiency column, at 50 - 60°C, under vacuum; this could be reversed to form I by heating. Formation of the energetically less favorable isomer III is ascribed to stopping A from attaining thermodynamic equilibrium. Adducts of maleic anhydride (MA), with I and III were prepared in 68 - 76% yields (ether-benzene solutions, -10°C) and some simple derivatives of these adducts (the corresponding dicarboxylic acid and dimethyl ester from the adduct of MA with I; the corresponding γ-lactone acid and its methyl ester from the adduct of MA with II) were prepared. The advice of V. T. Aleksanyan is acknowledged. There are 2 figures.

ASSOCIATION: Institut organicheskoy khimii imeni N. D. Zelinskogo. Komissiya po spektroskopii Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy. Spectroscopy Commission of the Academy of Sciences of the USSR)

SUBMITTED: December 11, 1961

Card 2/2

MIRONOV, V.A.; SOBOLEV, Ye.V.; YELIZAROVA, A.N.

Substituted cyclopentadienes and related compounds. Report No.10: Three isomeric methylcyclopentadienes. Izv. AN SSSR. Ser.khim. no.9:1607-1617 S '63. (MIRA 16:9)

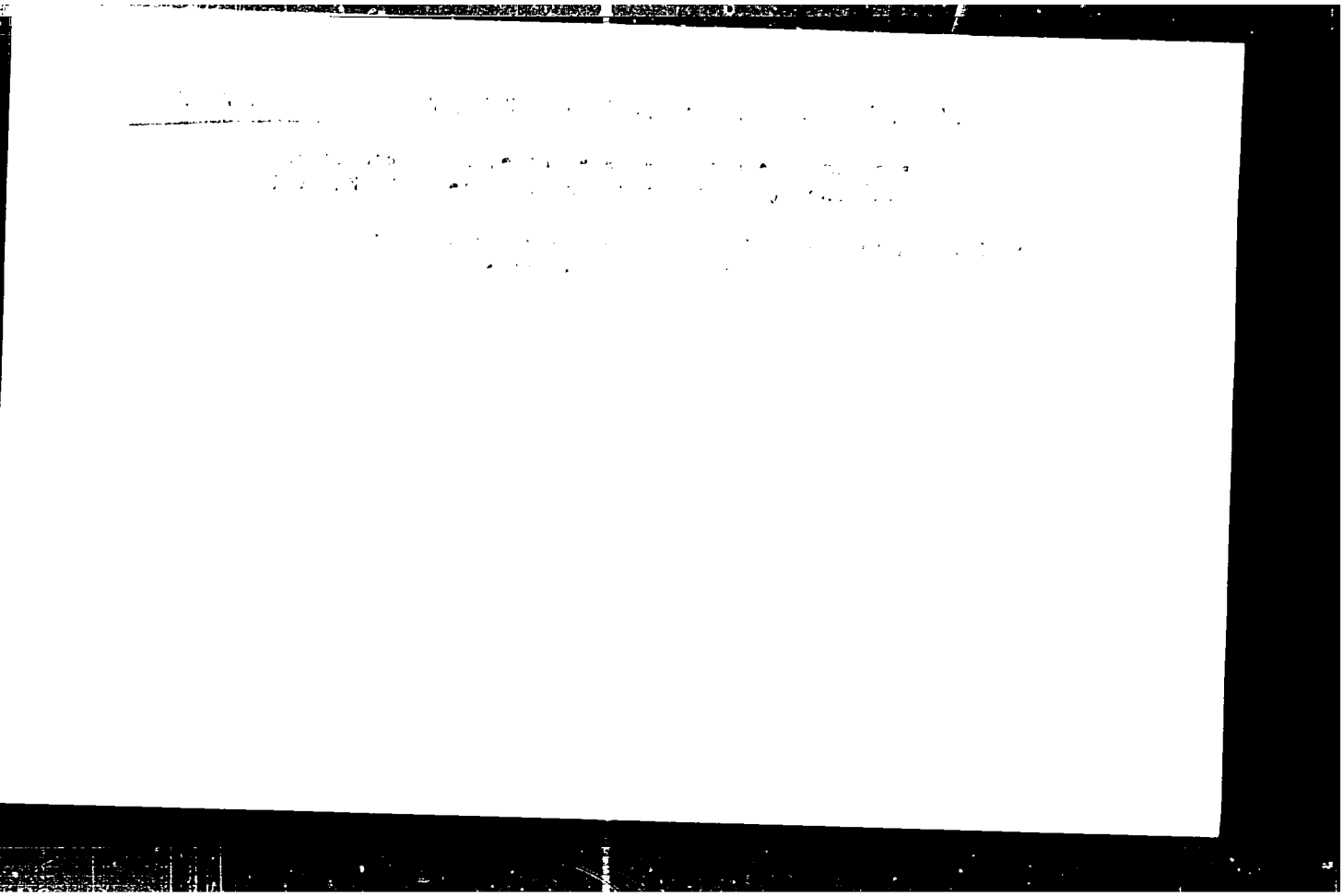
1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR; Komissiya po spektroskopii AN SSSR i Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR.

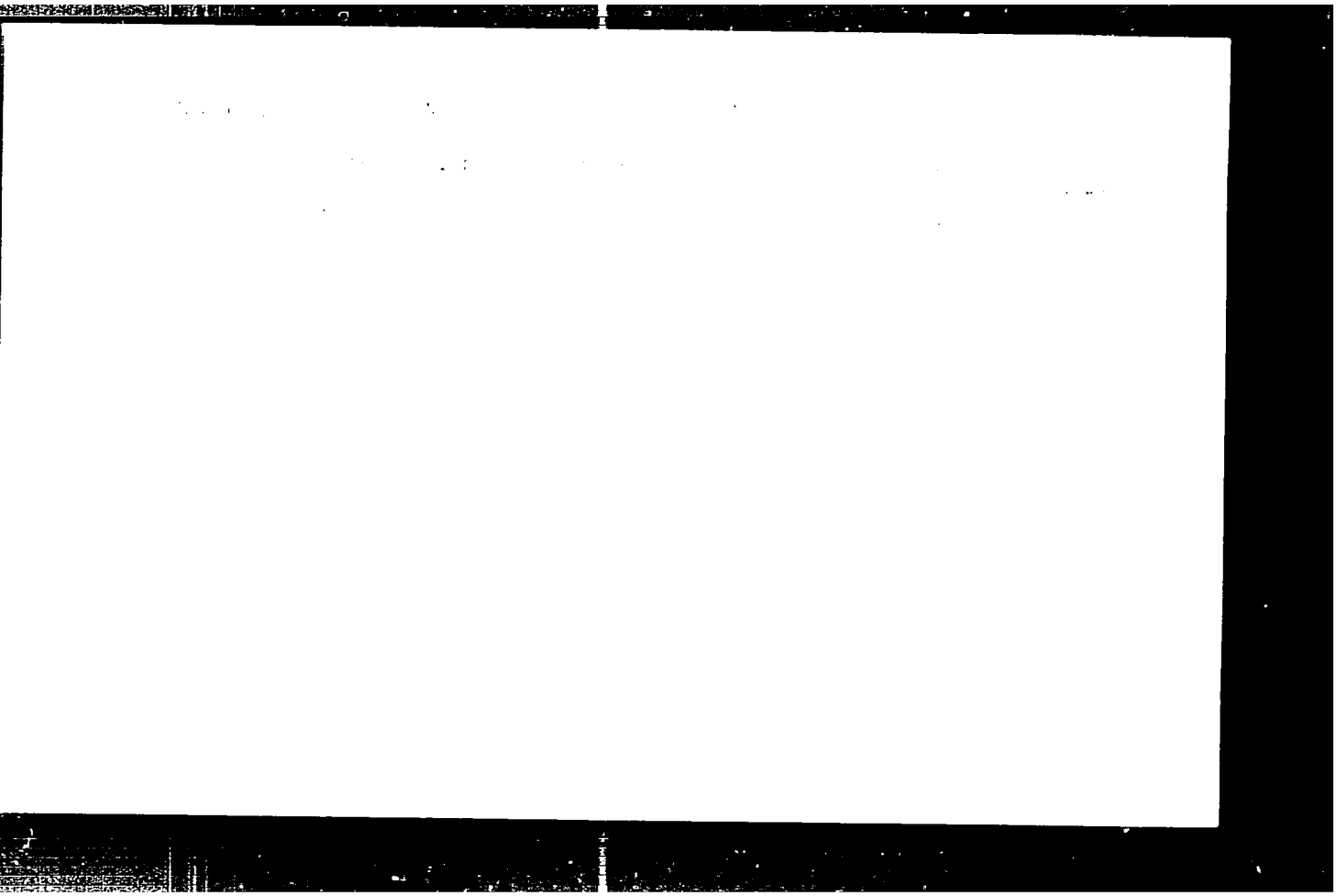
(Cyclopentadiene)

SOBOLEV, Ye.V.; ALEKSANYAN, V.T.; MIRONOV, V.A.

Vibration spectra of cyclopentadiene and monodeuterocyclopentadienes. Dokl. AN SSSR 152 no.4:923-926 O '63. (MIRA 16:11)

1. Komissiya po spektroskopii AN SSSR. Predstavleno akademikom B.A. Kazanskim.





BYSTROV, V.F.; STEPANYANTS, A.U.; MIRONOV, V.A.

Structure of chemical compounds studied by means of nuclear magnetic resonance spectra. Part 4: Adducts of substituted cyclopentadienes with maleic anhydride and their derivatives. Zhur. ob. khim. 34 no.12:4039-4047 D '64. (MIRA 18:1)

1. Institut khimicheskoy fiziki AN SSSR i Institut organicheskoy khimii AN SSSR.